Abstract

A method of and arrangement for buffering, during at least a predetermined retention time, a digital optical signal (S(i), i = 0, ..., 3) having a predetermined digital level is described. In one illustrative embodiment, the method includes inputting the optical signal (S(i)) to an optical input of a semiconductor laser element (SLE(i)) and injecting an injection current to the semiconductor laser element (SLE(i)) to establish an optical gain process in the semiconductor laser element (SLE(i)), the injection current having an amplitude such that the optical gain process and an optical absorption process within the semiconductor laser element (SLE(i)) outweigh one another longer than the retention time in order to keep the digital optical signal on the predetermined digital level during the retention time.